

# Hannanmetals

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NEWS RELEASE

OCTOBER 8, 2024

## HANNAN COMPLETES IP GEOPHYSICAL SURVEY, LARGE COPPER-GOLD SYSTEM CONFIRMED AT PREVISTO, PERU

Vancouver, Canada – **Hannan Metals Limited's** ("Hannan" or the "Company") (TSXV: HAN) (OTCPK: HANNF) is pleased to announce that the company has completed the first stage of a 79 line km Induced Polarization ("IP") geophysical survey at the Previsto Prospect within the 100%-owned Valiente Project in Peru (Figures 1 and 2).

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### Highlights:

- **Extremely large and multiple copper-gold targets:** The first geophysical Induced Polarization ("IP") survey coupled with field mapping and soil sampling has confirmed a 6 km x 6 km large copper ("Cu") – gold ("Au") porphyry and epithermal Au mineral system characterized by seven high priority targets that are now being evaluated for drill permitting (Figure 3).
  - **Two porphyry targets:** have been identified within a 5 km long and up to 1 km wide intrusive trend ([reported here](#)).
  - **Five epithermal targets:** a significant advancement this season is the identification of five epithermal gold targets that correlate with the extensive gold in soil anomalies at Previsto.
- **Ricardo Herrera Porphyry Copper 3D survey:** the geophysical survey crew have already moved to the next survey area, Ricardo Herrera within the Belen target area. An initial 28 line km offset array 3D IP survey is mapping the outcropping Miocene age calc-alkalic porphyry target where copper mineralization on surface coincides with strong phyllic and intermediate argillic alteration over 800 m x 250 m.

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**Michael Hudson, Executive Chairman and CEO, states:** *"The footprint of the Previsto mineral system now covers 6 km x 6 km and consists of two alkalic porphyry targets and five epithermal targets. The IP geophysical survey has been fundamental to refine our understanding and comprehend the scale of the mineral system that we are uncovering.*

*"Field work is now focused on providing further information on these selected targets for drill permitting. At the same time the IP survey crew has mobilized to the next target area, Belen, located 25 km to the south west. Belen contains two porphyry targets (Ricardo Herera and Sortilegio) and an epithermal system (Vista Alegre) over a 9 km strike."*

### Technical discussions:

The reported geophysical Induced Polarization survey ("IP") was the first at Previsto. Together with the multi-element soil sampling and mapping the footprint of the large mineral system covers an area of 6 km by 6 km. The IP survey has helped contextualize the significant gold in soil anomalies that were previously largely unexplained and highlighted the multiple epithermal gold target areas within the project (Figures 3 to 8).

Geochemical and geophysical experts have now been engaged to aid in the understanding of this vast system and further detailed information on each new target area will be released as further information is obtained.

- **Two porphyry targets:** have been identified within a 5 km long and up to 1 km wide intrusive trend ([reported here](#)). These targets are subdivided into PC1 and PC2 (Figure 3):
  - **PC1 - Outcropping porphyry mineralization:** with up to 126 m @ 0.22% Cu have been identified in the northern part of 5 km long and up to 1 km wide intrusive trend.

- **PC2 – Two zones of high chargeability:** correlating with outcropping phyllic alteration zones and potential feeder structures.
- **Five epithermal targets:** a significant advancement this season is the characterization of four epithermal gold targets which correlate with the extensive gold in soil anomalies at Previsto.
  - **HR1:** 1,700 m x 1,000 m Au-As soil anomaly open to the East and South. Gossan and siliceous boulders are present on surface. High chargeability anomalies >15mv/v with shoulders of high resistivity interpreted to represent disseminated sulfides and silicification.
  - **HR2 and HR3:** Two subvertical high chargeability anomalies with high resistivity shoulders. Mapped by IP to depth and remains open down-dip. Extensive gold in soil anomalies >0.1 g/t Au associated with As. At surface vuggy silica alteration and advanced argillic alteration is observed within rock samples.
  - **HR4:** >3 km long and 1 km wide intrusive trend dominated by alkalic dykes and small intrusive bodies. Widespread gold anomalies in soil >0.1 to 0.3 g/t Au. Source unexplained to date but inferred association with breccia gossans and micro quartz veinlets in intrusions.
  - **PE -Alkalic epithermal gold target:** Gold-copper mineralization in boulders of all sizes over an 1,800 m by 450 m area. The strongest mineralization is associated with roscoelite (Figure 8 for vanadium in soils), hydrothermal breccias and lattice bladed quartz ([first reported here](#)). Multi-element soil anomaly of Au-Cu-V-Hg-Te-As-Mo-Zn-Pb with two distinct centers and a broad anomalism over 1,800 m strike and 450 m width. Two IP lines were surveyed (L100 and L200) over the target but the electrical signal failed to penetrate the highly conductive thick surficial clay-rich scree at surface (Figure 9).

Previsto Central is defined by a large 10 km by 5 km airborne magnetic and radiometric anomaly. Alteration associated with porphyry intrusions is often magnetic (from magnetite) and potassic (from sericite/biotite/K-feldspar). At Previsto anomalous soil anomalies are associated with areas of elevated magnetics and potassium indicating minerals associated with porphyry alteration. The footprint dimensions of the alteration system at Previsto are considered significant on a global scale for a porphyry system. This area remains the main focus of the Company's field programs during the dry season.

This Previsto Central prospect is located 2.5 km west of the Previsto East ([reported on April 10, 2024](#)). The style of mineralization observed at both prospects show strong similarities, where alteration assemblages and mineralization styles include hydrothermal breccias, intense phyllic alteration and relics of potassic alteration, roscoelite veining/dissemination and replacement of feldspars, observed sulfide minerals include chalcopyrite, molybdenite, pyrite. Veining is rare and generally only thin quartz and quartz-pyrite-iron oxide veinlets have been observed in boulders. The porphyries intrude Cretaceous sandstones and limestone sediments.

Litho-geochemistry at Previsto shows a clear alkaline composition of the porphyry instructive host. The porphyries intrude sediments (sandstone, limestone, and shale) which show contact metasomatism around dykes and intrusive stocks.

### Survey description

The Induced Polarization ("IP") geophysical survey was carried out by GeoMad E.I.R.L a consultancy company based out of Lima, Peru. The survey consists of pole-dipole electrode configuration on single lines with electrode spacing at 100 m intervals. The length of the line varied between 1.2 km and 6.8 km, in total 4 lines were surveyed. The equipment consisted of a Hunttec 10Kw 20A transmitter and 10 channel ELREC PRO receiver. Stations were recorded by LECIA GS15 GNSS.

### About the Valiente project

The 100% owned Valiente project is in central eastern Peru, east of the city of Tingo Maria (Figures 1 and 2). The area is characterized by steep topography on the eastern flank of the Central Cordillera with elevations between 800 m and 2,000 m above sea level (a.s.l.). The project was discovered in 2021 during an extensive greenfields mineral prospecting program initiated by Hannan for back-arc porphyry copper-gold systems. The Company has been actively exploring the project since 2021 and has successfully gained social permits progressively in all areas of interest.

During 2021 Hannan staked and still holds 1,002 km<sup>2</sup> of 100% owned mining concessions at Valiente covering unexplored terrain for potential mineralized porphyry targets in central eastern Peru. Early surface prospecting discovered two outcropping copper-gold porphyry targets and one epithermal target at Belen (see Press Release Feb 16, 2023) that is now being drill permitted (Figures 1 and 2). Porphyry discoveries quickly followed at Serrano Norte, Serrano and Pucacunga. The focus more recently has been on Previsto. At Previsto and Belen, a district-scale porphyry cluster within an area of 25 km by 10 km, with eight porphyry and/or epithermal targets now identified in more detail with up to 10 earlier stage targets awaiting further work.

In January 2024 Hannan submitted its first drilling application (DIA) covering two porphyry targets and one epithermal target at the Belen zone ([here for news release](#)). The company is now expanding the footprint by exploring new areas to build a pipeline of projects that will be permitted, and drill tested over the coming five years.

## **Other News**

### **Valiente Peru (Hannan 100%)**

- The DIA application for the Belen area was submitted in late January 2024 and has been progressing through the bureaucratic system. Over the last week the water authority (ANA) provided further observations to the DIA application which the Company's hydrologist rapidly addressed. It remains the Company's expectation, with all paperwork completed, to receive the DIA approval before the end of 2024. If this timetable is maintained drilling is expected to commence in Q1 2025.
- The permit area contains two outcropping porphyry targets (Ricardo Herrera and Sortilegio) and one zone with signatures of both porphyry-epithermal and skarn mineralization (Vista Alegre) where current IP surveys are being run.

### **San Martin (JOGMEC JV - Peru)**

- The environmental permit, the Declaracion de Impacto Ambiental ("DIA") for 40 drill platforms was received from the Ministry of Mines in Peru during [January 2024](#). The DIA is the primary environmental certification required to allow low impact mineral mineral prospecting programs, that includes drilling programs, to proceed at the San Martin copper-silver project in Peru.
- The Authorization to Initiate activities has been delayed. Over the last week, Hannan resubmitted the application for the easement of the surface land ("servidumbre") with the regional government of San Martin. The Company has legal permission from the local landholders and communities who have lived on the land for decades. The Company anticipates approval of Authorization to Initiate activities before the end of 2024, but drilling would not now be expected to commence until Q1 2025.
- Environmental data collection to support a new DIA application at San Martin West project 40 km west of San Martin, has been put on hold to focus on permissions at San Martin.

### **Cerro Rolando Chile (Hannan has option to earn 100%)**

- Hannan is in the process of permitting a small drill program to test a shallow conductor at the Cerro Rolando Project in Chile. The conductor has been modeled to a depth of 60 m and may represent a perched supergene blanket from a mineralized porphyry at depth.
- A community contract was recently signed, and final drill approval from the authorities is anticipated during October 2024. Permitting for 3 platforms has been made with a minimum contract requirement for one 100 m deep hole to test the shallow conductor. The conductor is 10 m to 15 m thick and open to the E and W. It directly overlays a magnetic anomaly that is modeled to 450 m depth. The drill target is located at a regional significant NNW lineament that controls the emplacement of the giant Chuquicamata deposit.

## **Technical Background**

All samples were collected by Hannan geologists. Samples were transported to ALS in Lima via third party services using trackable parcels and by company staff. At the laboratory, rock samples were prepared and analyzed by standard methods. The sample preparation involved crushing 70% to less than 2 mm, riffle split off 250g, pulverize split to better than 85% passing 75 microns. Samples were analyzed by method ME-MS61, a four-acid digest performed on 0.25g of the sample to quantitatively dissolve most geological materials. Analysis is via ICP-MS. Channel samples are considered representative of the in-situ mineralization samples and sample widths quoted approximate the true width of mineralization, while grab samples are selective by nature and are unlikely to represent average grades on the property. Gold was analyzed in rock and soils by ALS in Lima using a standard sample preparation and 30g fire assay sample charge. Soil samples were analyzed by a portable XRF (VANTA-VMR) using an inhouse protocol which includes routine use of CRM and field duplicates as well as 10% check samples analyzed by ALS Lima.

## **About Hannan Metals Limited (TSXV:HAN) (OTCPK: HANNF)**

Hannan Metals Limited is a natural resources and mineral prospecting company developing sustainable resources of metal needed to meet the transition to a low carbon economy. Over the last decade, the team behind Hannan has forged a long and successful record of discovering, financing, and advancing mineral projects in Europe and Peru. Hannan is a top ten in-country explorer by area in Peru.

Mr. Michael Hudson FAusIMM, Hannan's Chairman and CEO, a Qualified Person as defined in National Instrument 43-101, has reviewed and approved the technical disclosure contained in this news release.

On behalf of the Board,

**"Michael Hudson"**

Michael Hudson, Chairman & CEO

### **Further Information**

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## THE VALIENTE PROJECT

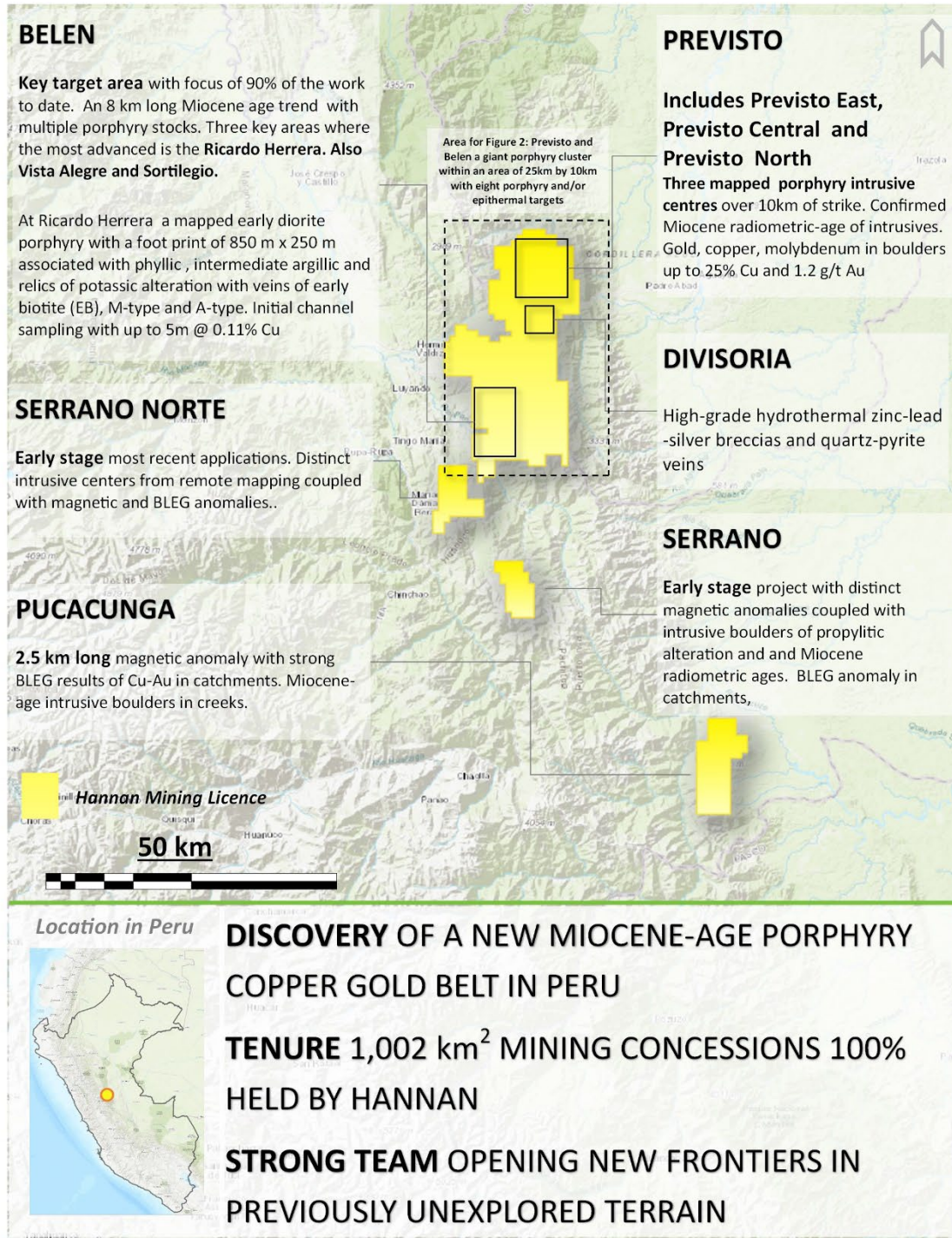


Figure 1. Overview of the 1,002 km<sup>2</sup> Valiente project area in Peru.

## AN EMERGING CLUSTERED PORPHYRY DISTRICT AT VALIENTE

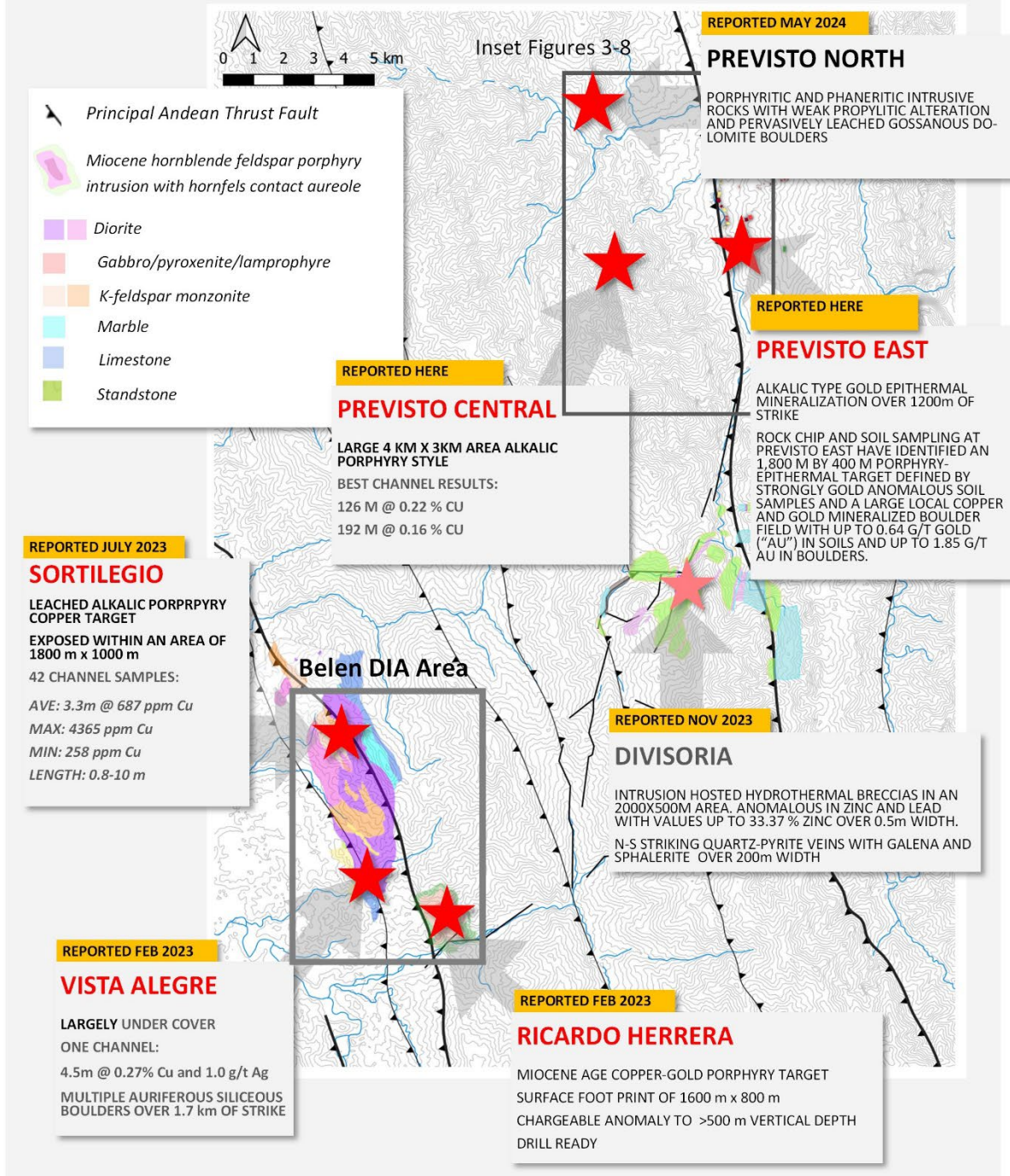


Figure 2. Geological overview of porphyry copper exploration targets at Valiente project. Targets in this news release are highlighted in red.

## PREVISTO TARGET MAP WITH IP RESULTS

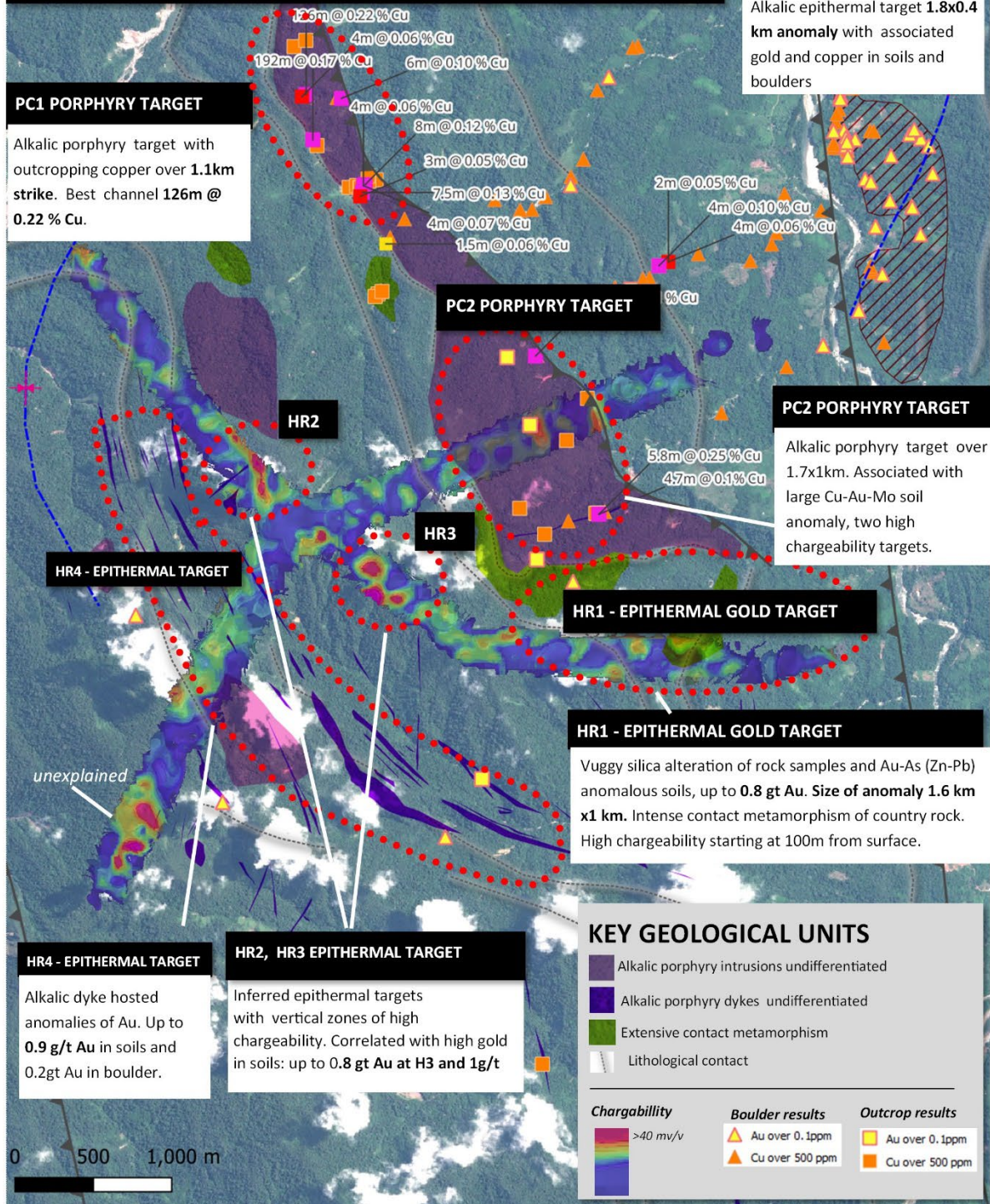


Figure 3. Target map from Previsto showing the inverted IP results together with key geological units and geochemical results. High priority target areas are highlighted and summarized in the figure.

## PREVISTO COPPER SOIL AND ROCK RESULTS

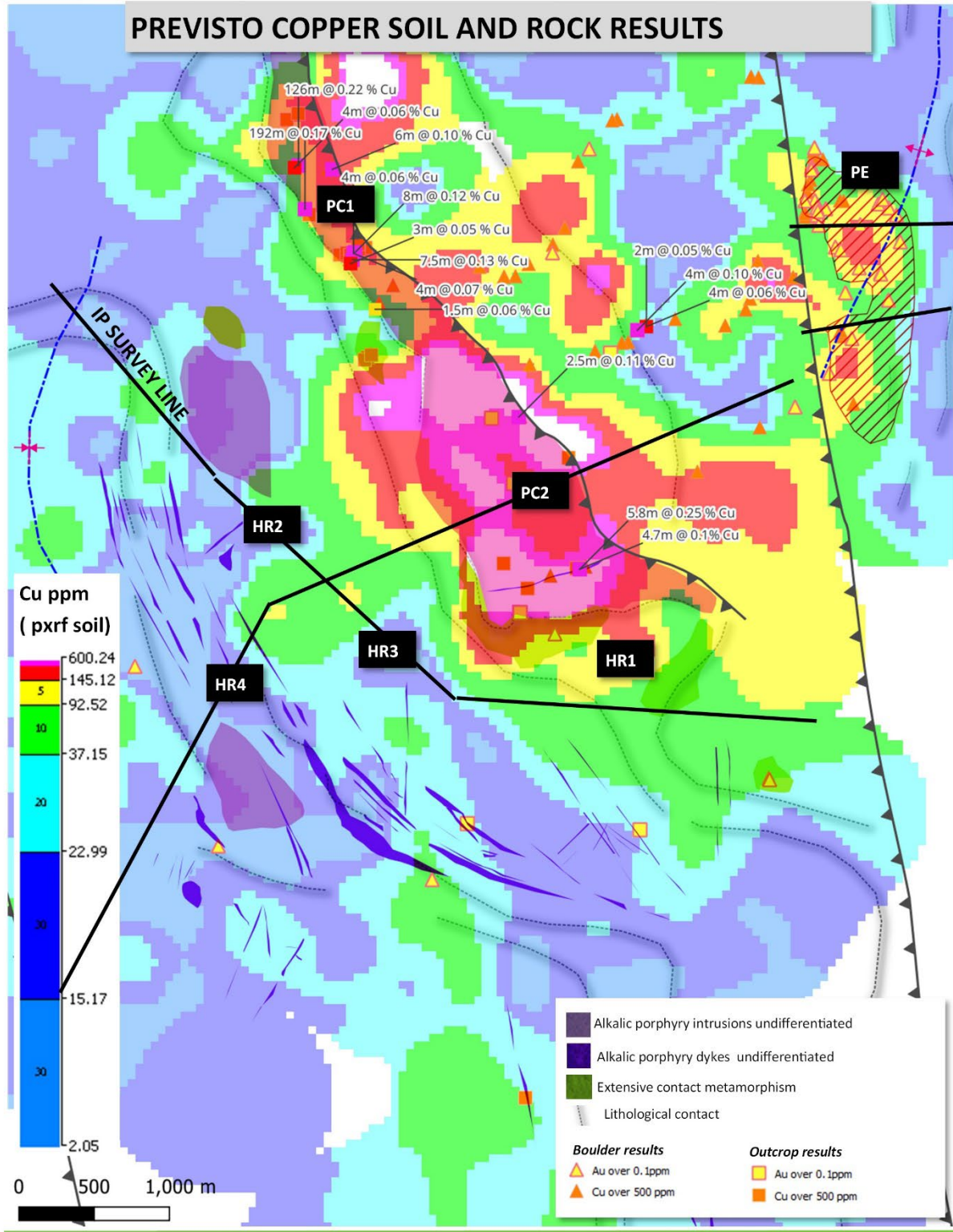


Figure 4. Gridded soil data from Previsto Central and Previsto East showing the results from this season sampling.



## PREVISTO GOLD SOIL AND ROCK RESULTS

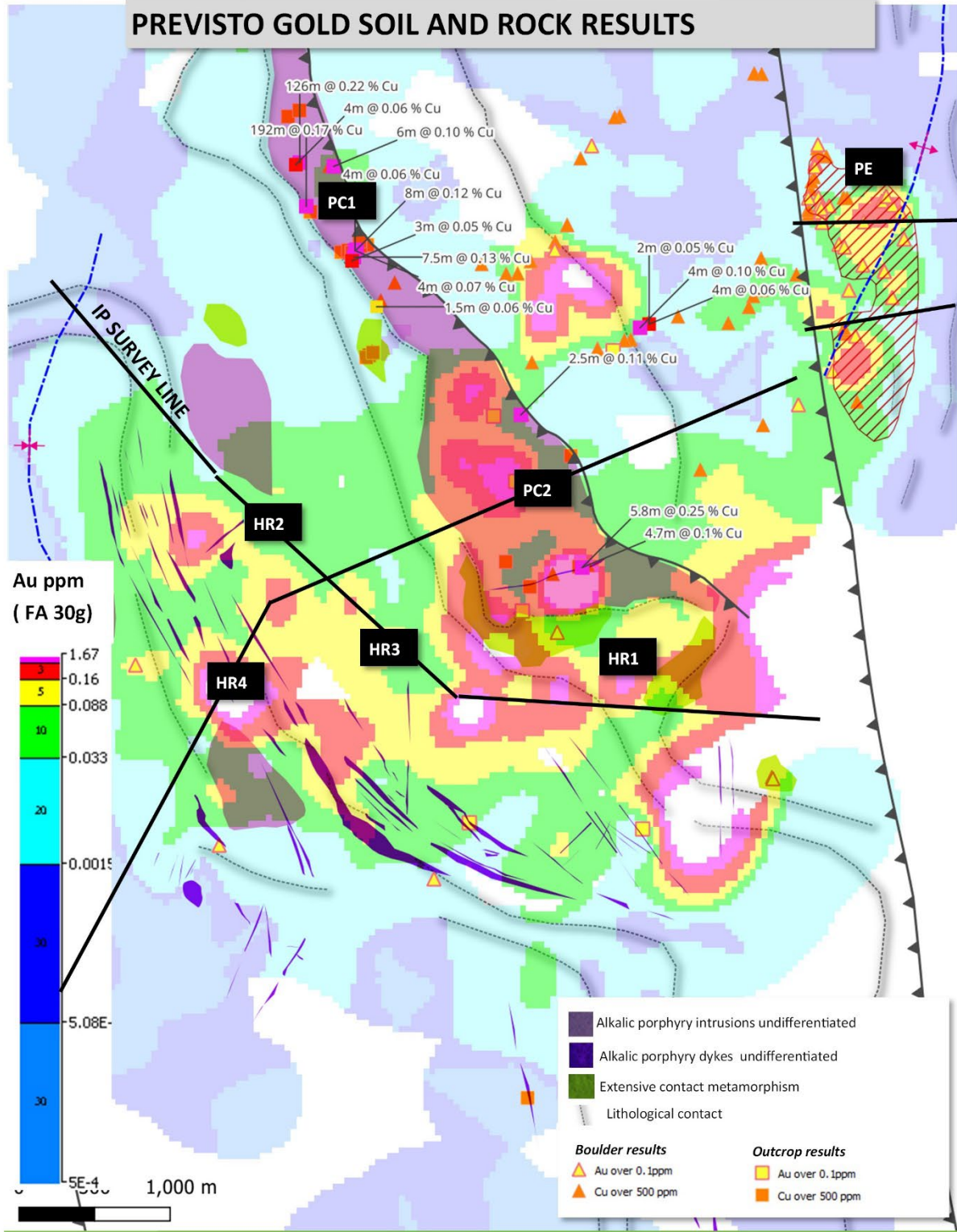


Figure 5. Gridded soil data from Previsto Central and Previsto East showing the results from this season sampling.

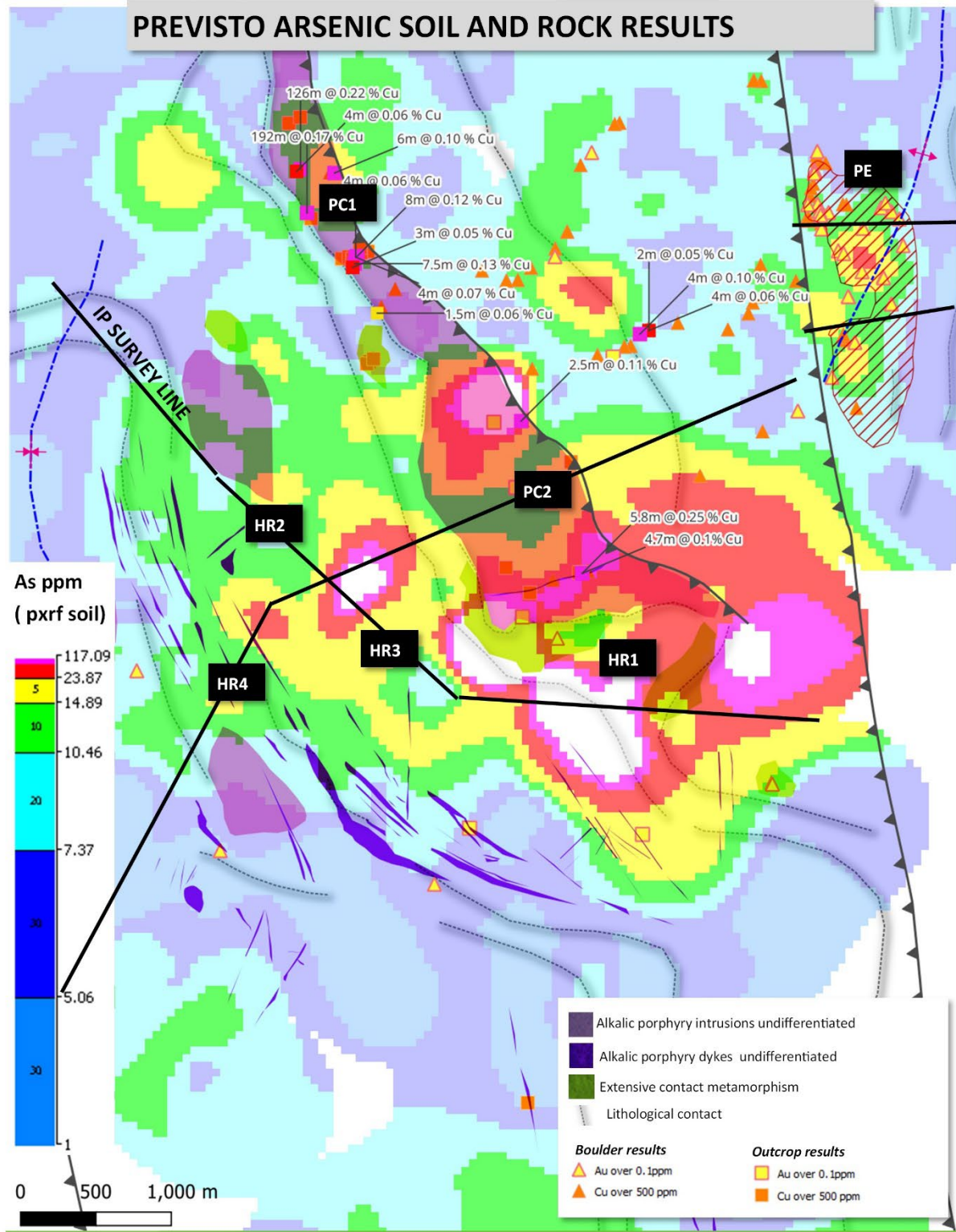


Figure 6. Gridded soil data from Previsto Central and Previsto East showing the results from this season sampling.

## PREVISTO MOLYBDENUM SOIL AND ROCK RESULTS

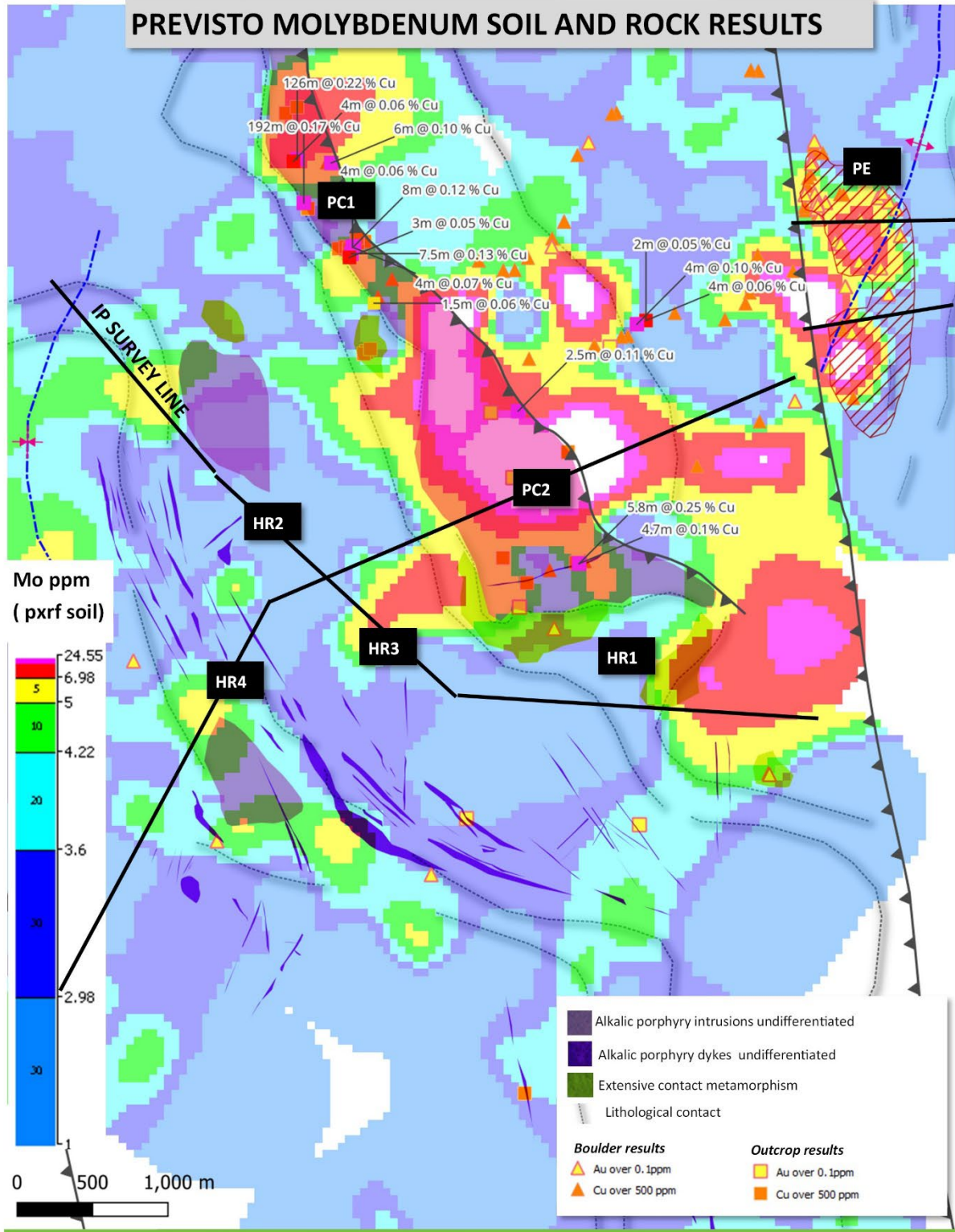


Figure 7. Gridded soil data from Previsto Central and Previsto East showing the results from this season sampling.

## PREVISTO VANADIUM SOIL AND ROCK RESULTS

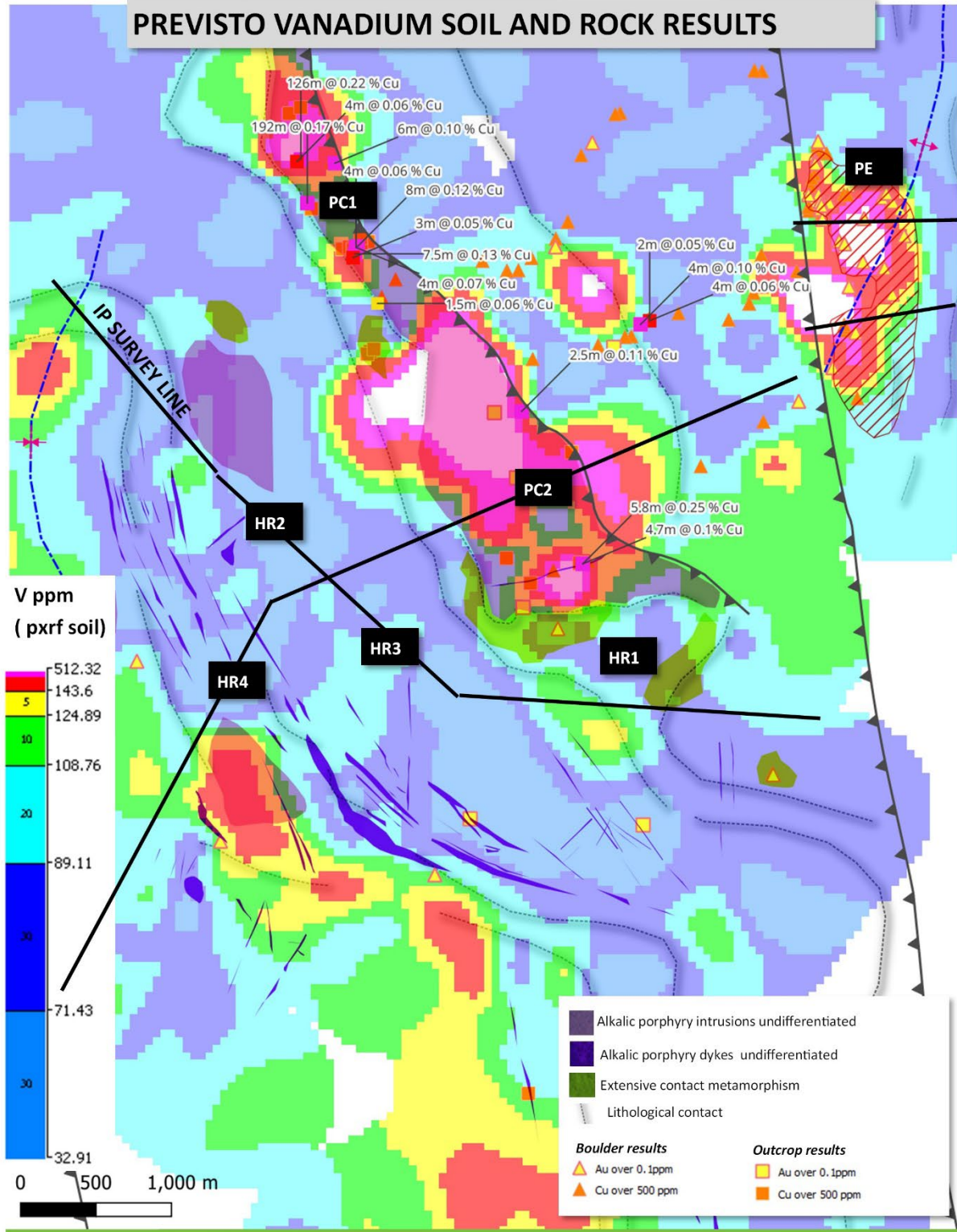


Figure 8. Gridded soil data from Previsto Central and Previsto East showing the results from this season sampling.